

COMMONWEALTH OF MASSACHUSETTS  
DEPARTMENT OF ENVIRONMENTAL QUALITY ENGINEERING  
DIVISION OF WATER POLLUTION CONTROL

XXX  
X  
In the matter of X  
X  
City of New Bedford X  
NPDES Permit No. MA0100781 X  
State No. M-120 X  
X  
X  
XXX

ADMINISTRATIVE  
ORDER  
DOCKET NO. 533

STATEMENT OF FACTS AND LAW

1. The Division of Water Pollution Control ("the Division") of the Department of Environmental Quality Engineering ("the Department"), which maintains its offices at One Winter Street, Boston, Massachusetts 02108, is established by and responsible for implementing the provisions of the Massachusetts Clean Waters Act, G.L.c.21, §§ 26-53.
2. The City of New Bedford ("the City") owns and operates a wastewater treatment facility ("the Facility") at Fort Rodman in New Bedford with a discharge outfall to Buzzards Bay, a water of the Commonwealth.
3. The Division, pursuant to the Massachusetts Clean Waters Act, G.L.c.21, §§ 26-53, and the United States Environmental Protection Agency ("E.P.A."), pursuant to the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1251 et seq., jointly administer a regulatory program within the Commonwealth of Massachusetts requiring that all discharges into the waters of the Commonwealth be in conformity with jointly issued discharge permits.

4. A discharge permit, Federal number MA0100781 and state permit number M-120, was issued to the City by the E.P.A and the Division on December 30, 1974 pursuant to the Federal Water Pollution Control Act Amendments of 1972 and the Massachusetts Clean Waters Act, specifically G.L. c.21, §43(2), which provides:

No person shall discharge pollutants into waters of the commonwealth nor construct, install, modify, operate or maintain an outlet for such discharge or any treatment works, without a currently valid permit issued by the director; ...

5. General Laws c.21, §43(7), provides in pertinent part:

Every permit shall specify effluent limitations, interim and final deadlines where appropriate for compliance, the term for which the permit is issued, which may not be in excess of five years, and such requirements of proper operation and maintenance, monitoring, sampling, recording, reporting, and inspection as the director may prescribe.

6. While the discharge permit was by its terms to expire on July 1, 1977, the City applied for renewal of this permit by application dated November 18, 1976, which application has not been processed finally by the Division and E.P.A.

7. The 1974 discharge permit remains in full force and effect by operation of G.L.c.30A, §13, which provides in pertinent part:

"License", as used in this section, includes any license, permit ... or similar form of permission required by law... If a licensee has, in accordance with any law and with agency regulations, made timely and sufficient application for a renewal, his license shall not expire until his application has been finally determined by the agency.

8. By the terms of its discharge permit, the City is authorized to discharge from its wastewater treatment facility an effluent whose characteristics shall not exceed the limitations set forth in part below:

Special Condition I.A.1 -

	<u>Monthly Average</u>	<u>Maximum Day</u>
Biochemical Oxygen Demand, 5-day, 20°C	110 mg/l	130 mg/l
Total Suspended Solids	80 mg/l	110 mg/l

...e. The monthly average concentration of BOD and total suspended solids in the discharge shall not exceed 70% and 50% of the monthly average concentrations of BOD and total suspended solids in the influent into the permittee's wastewater treatment facilities.

9. Special Condition I.C.1. of the City's discharge permit requires the City to monitor and record daily the quality of the influent and effluent of the wastewater treatment facility, and to report monthly the results thereof to the Division, on a form provided by the Division.
10. Monthly reports submitted to the Division by the City for the twelve months of 1982, show that the City has violated the BOD limit specified above 32.3% of the time on a daily basis and 58.3% of the time on a monthly basis, with the total suspended solids limit specified above violated 41.9% of the time on a daily basis, and 83.3% of the time on a monthly basis. In addition, Special Condition I.A.1.e. quoted above was violated nine out of twelve months relative to BOD and twelve out of twelve months for total suspended solids.

11. General Condition 5 of the City's discharge permit provides:

All waste collection, control, treatment, and disposal facilities shall be operated in a manner consistent with Division's "Rules and Regulations for Operation and Maintenance of Sewerage Systems and Waste Treatment Facilities", as most recently amended, and any applicable Federal Regulations and Guidelines, which regulations are hereby incorporated into and made a part of this permit. The permittee shall at all times maintain in good working order and operate as efficiently as possible any facilities or system of control installed or utilized to achieve compliance with the terms and conditions of this permit.

12. The Division's "Rules and Regulations for Operation and Maintenance of Sewerage Systems and Waste Treatment Facilities" are codified at 314 CMR 7.00 and provide in pertinent part:

- 7.03 (4) All wastes shall receive appropriate treatment which is defined as that degree of treatment necessary including disinfection to meet the objectives of the Massachusetts Clean Waters Act, Federal Water Pollution Control Act Amendments of 1972 or other current standards, all as determined by the Division...
- 7.04 (1) Any person responsible for the operation of waste treatment facilities shall not permit wastes to bypass the facility or any portion, unit or part thereof except as may be necessary under existing design limitations as approved by the Division. If bypassing due to an emergency condition occurs, the Division shall be notified immediately. (Such notification or its acknowledgement shall not be construed as permission by the Director to discharge wastes in contravention of the Water Quality Standards.)...
- (3) All flow regulators and other like devices in a sewerage system shall be so maintained that no discharge occurs at less than the designed overflow rate and in no instance less than the dry weather flow conditions if the designed overflow rate is not known...
- 7.05 (1) All waste treatment facilities shall be provided with adequate operating personnel to ensure proper operation and the required degree of treatment at all times.
- (2) In order to assure proper operation and maintenance, the Division may determine and require a minimum number of shifts and personnel per shift for any waste treatment facility taking into consideration the size, complexity and safety requirements of the particular facility...

(6) All persons maintaining waste treatment facilities shall maintain the facility in a manner that will ensure proper operation of the facility or any part thereof.

(7) All persons operating waste treatment facilities shall establish and utilize a preventive maintenance program approved by the Division.

(8) Every person operating a waste treatment facility shall provide sufficient and adequate tools, equipment, spare parts and supplies to maintain and operate all appurtenances of the facility on a continuing basis.

(9) A reserve supply of all parts and supplies having a high replacement rate should be "on hand" at all times.

(10) All "standby" and other equipment shall be maintained in an operable condition.

13. G.L.c.21, §34 provides:

The division shall supervise the operation and maintenance of treatment works within the Commonwealth, and the director may require the person owning and operating such facilities to maintain the facilities in conformance with the provisions of this chapter and any regulations, permits, licenses or orders issued thereunder, and in conformance with applicable federal law and regulations.

14. Since 1979, the Division has conducted routine inspections of the Facility on the following dates:

January 30, 1979	June 28, 1982
June 21, 1979	August 25, 1982
December 5, 1979	September 17, 1982
October 21, 1980	February 4, 1983
March 4, 1982	

15. Each of these inspections revealed significant operation and maintenance violations at the Facility as evidenced by the attached inspection reports, which may be summarized as follows:

- A. Grit Chamber - Removal of solids and grit accumulated in the influent "grit chamber" is not undertaken on a routine basis. On February 4, 1983 the grit chamber was full of accumulated solids.
- B. Influent Pumps - Of the four influent pumps, one or more are routinely inoperative. Failure to maintain all four influent pumps in working order has resulted in surcharging of the sewer system and bypassing of the Facility through combined sewer overflows discharging to Clark's Cove. Use of such overflows during dry weather conditions where the design flow of the influent pumps is not exceeded constitutes an unpermitted discharge of pollutants to waters of the Commonwealth in violation of G.L.c.21, §43 and a bypass of the Facility in violation of the City's discharge permit General Condition 19 and 314 CMR 7.04 (1) and (3).
- C. Primary Clarifiers - Failure to maintain the sludge handling equipment in working order, such as sludge pumps, gravity sludge thickeners, and centrifuges, has resulted in one or more clarifiers being routinely inoperative. Inability and failure to draw off sludge from the clarifiers results in solids washout and causes or contributes to the violations cited in paragraphs 8, 9, and 10 above.
- D. Chlorination Facilities - Failure to maintain chlorination equipment has resulted in an inability to provide continuous disinfection at the Facility as required in the City's discharge permit. For example, during the February 4, 1983 inspection, two of four chlorinators and two of four evaporators were out of service, as well as the microswitch for alternating between one bank of chlorine tanks to the second bank of tanks. In addition, failure to routinely remove scum, grease and floating solids from the chlorine contact chambers further interferes with the ability of the chlorination units to provide adequate disinfection.

- E. Preventive Maintenance - The City has failed generally to develop a plan to schedule, budget and implement routine maintenance of equipment at the facility, and failed to provide sufficient tools, equipment, spare parts and supplies to operate all equipment, including standby equipment, on a continuous basis in violation of 314 CMR 7.05 (7), (8), (9) and (10). These omissions have resulted in an increase both in the frequency and duration of violations at the Facility.
16. In addition to the specific violations noted in paragraph 15 above, the general lack of proper operation and maintenance of the Facility evidenced in the attached inspection reports constitutes a violation of General Condition 5 of the City's discharge permit, and 314 CMR 7.03(4), 7.04(1) and 7.05(6).
17. By letters dated March 23, 1979, June 27, 1979, August 15, 1979, February 12, 1980, October 30, 1980, December 29, 1980, January 14, 1981 and July 28, 1981, the Division informed the City of the various violations noticed during inspections of the Facility, and required the City to remedy those violations. While the City may have complied with certain of the directives in the letters, the City has continued improperly and inadequately to operate and maintain the Facility on a continuous basis, as evidenced by the most recent inspection of February 4, 1983.

WHEREFORE, the Division, on the basis of the foregoing facts and pursuant to G.L.c.21, §§ 34 and 44 and 314 CMR 7.00, herewith issues the following:

ORDER

The City shall forthwith cease the discharge from its Facility of inadequately treated waste in violation of its NPDES discharge permit, and shall properly operate and maintain the facility to comply with the discharge permit and all regulations and directives of the Division requiring proper operation of the Facility. In complying with this Order, the City shall undertake the following actions:

1. By April 1, 1983, all influent pumps shall be operational and on line.
2. By April 15, 1983,
  - a) the flow metering devices at the headworks of the facility shall be recalibrated by qualified factory representatives;
  - b) the influent "grit chamber" shall be fully cleaned and operational with all accumulated grit and solids removed, at least every 6 months or as necessary to maintain optimal grit removal;
  - c) all clarifiers shall be operational and on line, together with all sludge pumps, gravity sludge thickeners, and centrifuges, as well as any other necessary equipment or appurtenances;
  - d) an invoice showing the purchase of sludge blanket indicators shall be submitted to the Division, together with a schedule for measuring sludge blanket depth in each clarifier once in each of the three operator shifts at the plant, and the name of the plant personnel assigned to measure sludge blanket depth during each shift; in addition, submit the sludge blanket depth at which sludge will be drawn from the clarifiers and the technical basis for drawing sludge from the clarifiers at that depth;



- e) the four chlorinators and four evaporators shall be fully operational, together with all associated equipment including, but not limited to, the chlorine cylinder weighing scales and micro-switches for alternating between banks of chlorine tanks; in addition, the chlorine contact chamber shall be cleaned of accumulated floating scum, grease and solids, and any settled solids, at least 3 times per week; and
- f) develop and submit to the Division for review and approval, a preventive maintenance program as prescribed in 314 CMR 7.05(7). Said program shall contain the necessary schedules of routine inspections of equipment, units and processes at the Facility to insure continuous operation of all elements of the Facility, plans for effecting timely repairs of each piece of equipment, unit or process, an inventory and listing of essential spare parts, safety equipment, and tools available and to be maintained on hand at the Facility at all times, a listing of all standby equipment to be maintained in operational condition at all times, and the necessary budget and staffing to accomplish the program, and a schedule for implementing the program.

3. Within            days of approval by the Division of the preventive maintenance program, the program shall be implemented in accordance with the schedule approved by the Division.
4. By May 15, 1983 all standby equipment identified in the preventive maintenance program shall be operational.
5. For each action scheduled above, the City shall notify the Division in writing as each action is accomplished.

Notices shall be sent to:

Paul T. Anderson  
Regional Environmental Engineer  
Southeast Region  
Department of Environmental Quality Engineering  
Lakeville Hospital  
Lakeville, Massachusetts 02346

Copies of each notice shall be sent to:

Thomas C. McMahon, Director  
Division of Water Pollution Control  
One Winter Street  
Boston, Massachusetts 02108

Attn: William Gaughan

and

Edward K. McSweeney, Chief  
Water Quality Branch  
U.S. Environmental Protection Agency  
John F. Kennedy Federal Building  
Boston, Massachusetts 02203

6. Modifications to the Facility currently being designed by the City to provide improved flexibility of Facility operation and personnel safety, and to optimize plant efficiency include: a headworks protective enclosure; relocation of influent pump motors; modification of piping for sludge, scum, chlorine and centrifuge systems; primary clarifier weir replacement; installation of scum collection for the chlorine contact chamber; provision of a maintenance/repair shop; and various other Facility improvements, such as changes to the Facility ventilation and water systems. The City shall complete the design and construction of these improvements in accordance with the following:

- a) By May 1, 1983 submit final design plans and specifications to the Division for approval;
- b) By July 15, 1983 advertise for bids for the project as approved and notify the Division thereof;
- c) By November 15, 1983 award the contract for construction of the approved improvements and notify the Division thereof; and
- d) By November 15, 1984 complete construction of the approved improvements and notify the Division thereof.

7. By \_\_\_\_\_, 1983 the City shall submit to the Division for approval an engineering report evaluating and proposing alternative sludge handling and storage processes to allow operation of the Facility when the incinerator is not operating, together with a schedule for design and instruction of the recommended alternative.
8. By \_\_\_\_\_, 1983 the City shall engage a professional engineering consultant to evaluate and prepare a report on the capability of the present personnel employed by the City to operate the Facility, and the adequacy of present operational procedures and practices employed by such personnel and notify the Division thereof.
9. By \_\_\_\_\_, 1983 the City shall submit to the Division for approval the report prepared in accordance with paragraph 8 above.
10. Each submission required in paragraph 6 above shall be forwarded to:

Paul A. Taurasi, Chief Engineer  
Division of Water Pollution Control  
One Winter Street  
Boston, Massachusetts 02108

Copies of notices shall be sent to Paul T. Anderson and William Gaughan at the addresses in paragraph 5 above.

Issued by the Division of Water Pollution Control

By:

\_\_\_\_\_  
Date

\_\_\_\_\_  
Thomas C. McMahon, Director  
Division of Water Pollution Control  
One Winter Street  
Boston, Massachusetts 02108

Waiver of Adjudicatory Hearing

I, \_\_\_\_\_, Mayor of the City of New Bedford, having read the above-stated Administrative Order, hereby waive any right to administrative review thereof under the provisions of M.G.L. c.21, Section 43, 45 and 46A and c.30A and the "Standard Adjudicatory Rules of Practice and Procedure" 801 CMR 1.01 (Formal Rules) on behalf of the City.

By:

\_\_\_\_\_  
Date